Scenario: #1 - Permanent Wildlife Exclusion

## **Scenario Description:**

Installation of a taller than normal permanent fence to prevent conflicts between humans, livestock, and wildlife species. Such a fence would exclude wildlife from areas used by livestock.

#### **Before Situation:**

Wildlife negatively impacting sensitive areas such as riparian areas, windbreaks and shelterbelts or feed storage. Disease transmission from wildlife posses a significant health risk to domestic animals.

# **After Situation:**

Installation of fence reduces resource concerns associated with livestock and wildlife interaction and prevents conflicts involving threatened, endangered or sensitive species. Fence includes posts, wire, fasteners, gates, etc. Associated Practices: Prescribed Grazing, Pipeline, Water Well, Spring Development, Heavy Use Area, Pumping Plant, Watering Facility, Forage and Biomass Planting, Critical Area Planting, Access Control

Scenario Feature Measure: Length of Fence

Scenario Unit: Feet

Scenario Typical Size: 1,320

Scenario Cost: \$9,776.52 Scenario Cost/Unit: \$7.41

| <b>Cost Details (by category</b>        | ):   |  |          | Price     |          |            |
|---|------|--|----------|-----------|----------|------------|
| Component Name                          | ID   | Component Description  | Unit     | (\$/unit) | Quantity | Cost       |
|   | 1143 |  |          |           | 2        |            |
| Equipment/Installation                  |      |  | <u>'</u> | '         | <u>'</u> | 1          |
| Auger, Post driver attachment           | 934  | Auger or post driver attachment to a tractor or skidsteer.  Does not include power unit. Labor not included.   | Hour     | \$8.47    | 21       | \$177.87   |
| Truck, Pickup                           | 939  | Equipment and power unit costs. Labor not included.  | Hour     | \$37.64   | 30       | \$1,129.20 |
| Tractor, agricultural, 60 HP            | 963  | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.  | Hour     | \$23.74   | 40       | \$949.60   |
| Labor                                   |      |  |          |           |          |            |
| Equipment Operators, Light              | 232  | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP,<br>Trenchers <12", Ag Equipment <150 HP, Pickup Trucks,<br>Forklifts, Mulchers  | Hour     | \$22.08   | 30       | \$662.40   |
| General Labor                           | 231  | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour     | \$20.32   | 70       | \$1,422.40 |
| Materials                               |      |  |          |           |          |            |
| Post, Wood, CCA treated, 6" x<br>12-14' |      | Wood Post, Line/End 6" X 12-14', CCA Treated. Includes materials and shipping only.  | Each     | \$26.73   | 76       | \$2,031.48 |
| Post, Wood, CCA treated, 6" x 8'        | 12   | Wood Post, End 6" X 8', CCA Treated. Includes materials and shipping only.   | Each     | \$14.96   | 8        | \$119.68   |
| Post, Steel T, 1.33 lbs, 10'            | 17   | Steel Post, Studded 10' - 1.33 lb. Includes materials and shipping only.   | Each     | \$10.83   | 66       | \$714.78   |
| Gate, Game, 8' High X 16'               | 1086 | 16' Wide Game Gate (8' Tall). Includes materials and shipping only.  | Each     | \$416.15  | 1        | \$416.15   |
| Wire, Woven, Wildlife, 96"              | 6    | High Tensile 12.5 gauge, 96" - 330' roll. Includes materials and shipping only.  | Each     | \$451.18  | 4        | \$1,804.72 |
| Mobilization                            |      |  | •        |           |          | •          |
| Mobilization, small equipment           |      | Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.   | Each     | \$174.12  | 2        | \$348.24   |

Scenario: #2 - Permanent Barbed Wire Multi Strand

## **Scenario Description:**

Scenario is for the establishment of permanent multi strand barbed wire fence for livestock.

## **Before Situation:**

On grazing lands health and vigor are negatively impacted by poor grazing distribution, timing of grazing and inadequate rest and recovery periods. Water quality is impacted by increased erosion and runoff, cattle access to water bodies is uncontrolled. Reduced vegetative cover increases the opportunity for encroachment of noxious and invasive weeds. Fence installation conditions are for difficult sites such as poor access, steep slopes, rocky sites, dense brush, wet conditions etc.

## **After Situation:**

Installation of fence will allow for implementation of grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds. Fence includes posts, wire, fasteners, gates, brace posts, etc... Fence will be installed with wildlife friendly

considerations. Associated Practices: Prescribed Grazing, Pipeline,

Water Well, Spring Development, Heavy Use Area, Pumping Plant, Watering Facility, Forage and Biomass Planting, Critical Area Planting,

Access Control

Scenario Feature Measure: Length of Fence

**Scenario Unit:** Feet

Scenario Typical Size: 1,320

Scenario Cost: \$2,910.82 Scenario Cost/Unit: \$2.21

| <b>Cost Details (by category</b>                     | ):  |  |      | Price     |          |          |
|--|-----|--|------|-----------|----------|----------|
| Component Name                                       | ID  | Component Description  | Unit | (\$/unit) | Quantity | Cost     |
| Equipment/Installation                               |     |  |      |           |          |          |
| Tractor, agricultural, 60 HP                         |     | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.  | Hour | \$23.74   | 12       | \$284.88 |
| Truck, Pickup  | 939 | Equipment and power unit costs. Labor not included.  | Hour | \$37.64   | 12       | \$451.68 |
| Auger, Post driver attachment                        |     | Auger or post driver attachment to a tractor or skidsteer.  Does not include power unit. Labor not included.   | Hour | \$8.47    | 12       | \$101.64 |
| Labor  |     |  |      |           |          |          |
| General Labor  |     | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$20.32   | 24       | \$487.68 |
| Materials  |     |  |      |           | ·        |          |
| Wire, Barbed, Galvanized, 12.5<br>Gauge, 1,320' roll |     | Galvanized 12.5 gauge, 1,320' roll. Includes materials and shipping only.  | Each | \$70.53   | 5        | \$352.65 |
| Post, Wood, CCA treated, 3-4" x 7'                   |     | Wood Post, Line 3-4" X 7', CCA Treated. Includes materials and shipping only.  | Each | \$6.20    | 68       | \$421.60 |
| Gate, Pipe, 16'                                      |     | 6 rail tube gate, 16 gauge. Includes materials and shipping only.  | Each | \$206.61  | 1        | \$206.61 |
| Fence, Wire Assembly, Barbed<br>Wire                 |     | Brace pins, battens, clips, staples. Includes materials and shipping only.   | Foot | \$0.16    | 1320     | \$211.20 |
| Post, Wood, CCA treated, 5" x 8'                     |     | Wood Post, End 5" X 8', CCA Treated. Includes materials and shipping only.   | Each | \$11.16   | 4        | \$44.64  |
| Mobilization   |     |  |      | •         |          | •        |
| Mobilization, small equipment                        |     | Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.   | Each | \$174.12  | 2        | \$348.24 |

Scenario: #3 - Permanent High Tensile Electric 2-3 Strand

## **Scenario Description:**

Scenario is for the installation of a permanent high tensile electric fence of either 2 or 3 strands. Fence will allow for implementation of a grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds. Constructed using fencing materials rather than a pre-manufactured gate.

#### **Before Situation:**

On grazing lands health and vigor are negatively impacted by poor grazing distribution, timing of grazing and inadequate rest and recovery periods. Water quality is impacted by increased erosion and runoff, livestock access to water bodies is uncontrolled. Reduced vegetative cover increases opportunity for encroachment of noxious and invasive weeds.

#### **After Situation:**

Installation of fence will allow for implementation of a rotational grazing plan that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds. This scenario consists of installing a permanent high tensile electric fence with 2-3 wires with wooden post of 50' centers, battens between the post, single H brace assembles, energizer, and all appurtenances. Associated Practices: Prescribed Grazing, Pipeline, Water Well, Spring Development, Heavy Use Area, Pumping Plant, Watering Facility, Forage and Biomass Planting, Critical Area Planting, Access Control

Scenario Feature Measure: Length of Fence

**Scenario Unit:** Feet

Scenario Typical Size: 1,320

Scenario Cost: \$2,081.90 Scenario Cost/Unit: \$1.58

| Component Name  | ID  | Component Description  | Unit | Price<br>(\$/unit) | Quantity | Cost     |
|---|-----|--|------|--------------------|----------|----------|
| Equipment/Installation                                    |     |  |      |                    |          |          |
| Auger, Post driver attachment                             |     | Auger or post driver attachment to a tractor or skidsteer.  Does not include power unit. Labor not included.   | Hour | \$8.47             | 6        | \$50.82  |
| Tractor, agricultural, 60 HP                              |     | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.  | Hour | \$23.74            | 6        | \$142.44 |
| Truck, Pickup   | 939 | Equipment and power unit costs. Labor not included.  | Hour | \$37.64            | 6        | \$225.84 |
| Labor   |     |  |      |                    |          |          |
| General Labor   |     | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$20.32            | 12       | \$243.84 |
| Materials   |     |  |      |                    | •        | •        |
| Post, Wood, CCA treated, 3-4" x 7'                        |     | Wood Post, Line 3-4" X 7', CCA Treated. Includes materials and shipping only.  | Each | \$6.20             | 29       | \$179.80 |
| Wire, High Tensile, 12.5<br>Gauge, 4,000' roll            |     | High Tensile 12.5 gauge, 4,000' roll. Includes materials and shipping only.  | Each | \$113.03           | 2        | \$226.06 |
| Fence, Wire Assembly, High<br>Tensile, Electric, 2 Strand |     | Brace pins, springs, strainers, battens, clips, crimp sleeves, staples, insulators, wrap around sleeves. Includes materials and shipping only.   | Foot | \$0.07             | 1320     | \$92.40  |
| Gate, Pipe, 16'   |     | 6 rail tube gate, 16 gauge. Includes materials and shipping only.  | Each | \$206.61           | 1        | \$206.61 |
| Post, Wood, CCA treated, 5" x<br>8'                       |     | Wood Post, End 5" X 8', CCA Treated. Includes materials and shipping only.   | Each | \$11.16            | 4        | \$44.64  |
| Electric, Energizer, 6 joule                              |     | Electric, Energizer, 6 joule for electric fence. Includes materials and shipping only.   | Each | \$321.21           | 1        | \$321.21 |
| Mobilization  |     |  |      |                    |          |          |
| Mobilization, small equipment                             |     | Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.   | Each | \$174.12           | 2        | \$348.24 |

Scenario: #4 - Permanent High Tensile Electric Single Strand

## **Scenario Description:**

Scenario is for the installation of a permanent high tensile electric single strand fence. Installation of fence will allow for implementation of a grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds.

#### **Before Situation:**

On grazing lands health and vigor are negatively impacted by poor grazing distribution, timing of grazing and inadequate rest and recovery periods. Water quality is impacted by increased erosion and runoff, cattle access to water bodies is uncontrolled. Reduced vegetative cover increases the opportunity for encroachment of noxious and invasive weeds.

#### **After Situation:**

Installation of fence will allow for implementation of grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds. Fence includes posts, wire, fasteners, gates, fence charger, etc. Fence will be installed with wildlife friendly considerations. Associated Practices: Prescribed Grazing, Pipeline, Water Well, Spring Development, Heavy Use Area, Pumping Plant, Watering Facility, Forage and Biomass Planting, Critical Area Planting, Access Control

Scenario Feature Measure: Length of Fence

Scenario Unit: Feet

Scenario Typical Size: 1,320

Scenario Cost: \$1,333.79 Scenario Cost/Unit: \$1.01

| Cost Details (by category) Component Name                 | ID   | Component Description  | Unit | Price<br>(\$/unit) | Quantity | Cost     |
|---|------|--|------|--------------------|----------|----------|
| Equipment/Installation                                    |      | ·  |      | (J) uiiit)         |          |          |
| Tractor, agricultural, 60 HP                              | 963  | Agricultural tractor with horsepower range of 50 to 90.<br>Equipment and power unit costs. Labor not included.   | Hour | \$23.74            | 3        | \$71.22  |
| Auger, Post driver attachment                             | 934  | Auger or post driver attachment to a tractor or skidsteer.  Does not include power unit. Labor not included.   | Hour | \$8.47             | 3        | \$25.41  |
| Truck, Pickup   | 939  | Equipment and power unit costs. Labor not included.  | Hour | \$37.64            | 3        | \$112.92 |
| Labor   |      |  |      |                    |          |          |
| General Labor   | 231  | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$20.32            | 6        | \$121.92 |
| Materials   |      |  |      |                    |          |          |
| Wire, High Tensile, 12.5<br>Gauge, 4,000' roll            | 2    | High Tensile 12.5 gauge, 4,000' roll. Includes materials and shipping only.  | Each | \$113.03           | 1        | \$113.03 |
| Electric, Energizer, 6 joule                              | 29   | Electric, Energizer, 6 joule for electric fence. Includes materials and shipping only.   | Each | \$321.21           | 1        | \$321.21 |
| Fence, Wire Assembly, High<br>Tensile, Electric, 1 Strand | 32   | Brace pins, springs, strainers, battens, clips, crimp sleeves, staples, insulators, wrap around sleeves. Includes materials and shipping only.   | Foot | \$0.02             | 1320     | \$26.40  |
| Post, Wood, CCA treated, 5" x<br>8'                       | 11   | Wood Post, End 5" X 8', CCA Treated. Includes materials and shipping only.   | Each | \$11.16            | 4        | \$44.64  |
| Post, Wood, CCA treated, 3-4"<br>x 7'                     | g    | Wood Post, Line 3-4" X 7', CCA Treated. Includes materials and shipping only.  | Each | \$6.20             | 24       | \$148.80 |
| Mobilization  |      |  |      |                    |          | -        |
| Mobilization, small equipment                             | 1138 | Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.   | Each | \$174.12           | 2        | \$348.24 |

Scenario: #5 - Permanent High Tensile, Minimum 4 Strand, Posts 16ft Centers, Double H

#### **Scenario Description:**

Establishment of permanent electric or non-electric high tensile fence for livestock. Fence is designed using minimum of 4 strands with posts on 16 foot centers using double H bracing.

#### **Before Situation:**

This practice will be installed on grazing land. The resource concerns to be addressed by this practice are poor grazing distribution, inadequate water supply, and degraded site conditions leading to poor animal health.

## **After Situation:**

This scenario consists of installing a permanent high tensile fence with a minimum of 4 wires with wooden posts on 16' centers, double H brace assembles and all appurtenances. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Associated Practices: Prescribed Grazing, Pipeline, Water Well, Spring Development, Heavy Use Area, Pumping Plant, Watering Facility, Forage and Biomass Planting, Critical Area Planting, Access Control

Scenario Feature Measure: Length of fence

Scenario Unit: Foot

Scenario Typical Size: 1,320

Scenario Cost: \$3,168.43 Scenario Cost/Unit: \$2.40

| Cost Details (by category) Component Name                 | ID  | Component Description  | Unit | Price<br>(\$/unit) | Quantity | Cost     |
|---|-----|--|------|--------------------|----------|----------|
| Equipment/Installation                                    |     | · · · · · · · · · · · · · · · · · · ·  |      | (J) Willey         | · · ·    |          |
| Truck, Pickup   | 939 | Equipment and power unit costs. Labor not included.  | Hour | \$37.64            | 10       | \$376.40 |
| Tractor, agricultural, 60 HP                              |     | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.  | Hour | \$23.74            | 15       | \$356.10 |
| Auger, Post driver attachment                             |     | Auger or post driver attachment to a tractor or skidsteer.  Does not include power unit. Labor not included.   | Hour | \$8.47             | 15       | \$127.05 |
| Labor   |     |  |      |                    |          |          |
| General Labor   |     | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$20.32            | 25       | \$508.00 |
| Materials   | •   |  |      | ·                  |          |          |
| Wire, High Tensile, 12.5<br>Gauge, 4,000' roll            |     | High Tensile 12.5 gauge, 4,000' roll. Includes materials and shipping only.  | Each | \$113.03           | 2        | \$226.06 |
| Electric, Energizer, 6 joule                              |     | Electric, Energizer, 6 joule for electric fence. Includes materials and shipping only.   | Each | \$321.21           | 1        | \$321.21 |
| Gate, Pipe, 16'   |     | 6 rail tube gate, 16 gauge. Includes materials and shipping only.  | Each | \$206.61           | 1        | \$206.61 |
| Fence, Wire Assembly, High<br>Tensile, Electric, 2 Strand |     | Brace pins, springs, strainers, battens, clips, crimp sleeves, staples, insulators, wrap around sleeves. Includes materials and shipping only.   | Foot | \$0.07             | 1320     | \$92.40  |
| Post, Wood, CCA treated, 3-4" x 7'                        |     | Wood Post, Line 3-4" X 7', CCA Treated. Includes materials and shipping only.  | Each | \$6.20             | 87       | \$539.40 |
| Post, Wood, CCA treated, 5" x<br>8'                       |     | Wood Post, End 5" X 8', CCA Treated. Includes materials and shipping only.   | Each | \$11.16            | 6        | \$66.96  |
| Mobilization  |     |  |      |                    |          |          |
| Mobilization, small equipment                             |     | Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.   | Each | \$174.12           | 2        | \$348.24 |

Scenario: #6 - Permanent High Tensile, Minimum 4 Strand, Posts 20ft Centers, Single H

#### **Scenario Description:**

Establishment of permanent electric or non-electric high tensile fence for livestock. Fence is designed using minimum of 4 strands with posts on 20 foot centers using single H bracing. Also used for small ruminant High Tensile electrified woven wire fence product.

#### **Before Situation:**

This practice will be installed on grazing land. The resource concerns to be addressed by this practice are poor grazing distribution, inadequate water supply, and degraded site conditions leading to poor animal health.

#### **After Situation:**

Typical size for this scenario is 1320 feet. This scenario consists of installing a permanent high tensile fence with a minimum of 4 wires with wooden posts on 20' centers and battens between the posts, single H brace assembles and all appurtenances. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Associated Practices: Prescribed Grazing, Pipeline, Water Well, Spring Development, Heavy Use Area, Pumping Plant, Watering Facility, Forage and Biomass Planting, Critical Area

Scenario Feature Measure: Length of Fence

Scenario Unit: Foot

Scenario Typical Size: 1,320

Scenario Cost: \$2,196.44 Scenario Cost/Unit: \$1.66

Cost Details (by category): Price **Component Name Quantity Cost Component Description** Unit (\$/unit) 1142 4 Equipment/Installation \$67.76 \$8.47 Auger, Post driver attachment 934 Auger or post driver attachment to a tractor or skidsteer. Hour 8 Does not include power unit. Labor not included. 963 Agricultural tractor with horsepower range of 50 to 90. \$23.74 8 \$189.92 Tractor, agricultural, 60 HP Hour Equipment and power unit costs. Labor not included. Truck, Pickup 939 Equipment and power unit costs. Labor not included. Hour \$37.64 8 \$301.12 Labor General Labor 231 Labor performed using basic tools such as power tool, Hour \$20.32 16 \$325.12 shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. Materials Post, Wood, CCA treated, 5" x 11 Wood Post, End 5" X 8', CCA Treated. Includes materials Each \$11.16 4 \$44.64 and shipping only. 29 Electric, Energizer, 6 joule for electric fence. Includes \$321.21 1 \$321.21 Electric, Energizer, 6 joule Each materials and shipping only. \$226.06 Wire, High Tensile, 12.5 2 High Tensile 12.5 gauge, 4,000' roll. Includes materials and Each 2 \$113.03 Gauge, 4,000' roll shipping only. 9 Wood Post, Line 3-4" X 7', CCA Treated. Includes materials \$421.60 Post, Wood, CCA treated, 3-4" Each \$6.20 68 and shipping only. x 7' Fence, Wire Assembly, High 33 Brace pins, springs, strainers, battens, clips, crimp sleeves, Foot \$0.07 1320 \$92.40 Tensile, Electric, 2 Strand staples, insulators, wrap around sleeves. Includes materials and shipping only. 1 \$206.61 Gate, Pipe, 16' 1059 6 rail tube gate, 16 gauge. Includes materials and shipping Each \$206.61 only.

Scenario: #7 - Permanent Woven Wire

## **Scenario Description:**

Establishment of woven wire fence for livestock.

## **Before Situation:**

This practice will be installed on grazing land. The resource concerns to be addressed by this practice are poor grazing distribution, inadequate water supply, and degraded site conditions leading to poor animal health.

# **After Situation:**

Typical size for this scenario is 1320 feet. This scenario consists of installing a permanent woven wire fence with wooden posts of 20' centers and single H brace assemblies. Also includes one strand barbed top wire, and all appurtenances. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Associated Practices: Prescribed Grazing, Pipeline, Water Well, Spring Development, Heavy Use Area, Pumping Plant, Watering Facility, Forage and Biomass Planting, Critical

Scenario Feature Measure: Length of Fence

**Scenario Unit:** Foot

Scenario Typical Size: 1,320

Scenario Cost: \$3,428.98 Scenario Cost/Unit: \$2.60

| Cost Details (by category):                          |      |  |      |           |          |          |  |
|--|------|--|------|-----------|----------|----------|--|
| Component Name                                       | ID   | Component Description  | Unit | (\$/unit) | Quantity | Cost     |  |
| Equipment/Installation                               |      |  |      |           |          |          |  |
| Truck, Pickup  | 939  | Equipment and power unit costs. Labor not included.  | Hour | \$37.64   | 8        | \$301.12 |  |
| Auger, Post driver attachment                        | 934  | Auger or post driver attachment to a tractor or skidsteer.  Does not include power unit. Labor not included.   | Hour | \$8.47    | 12       | \$101.64 |  |
| Tractor, agricultural, 60 HP                         | 963  | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.  | Hour | \$23.74   | 12       | \$284.88 |  |
| Labor  |      |  |      |           |          |          |  |
| General Labor  | 231  | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$20.32   | 24       | \$487.68 |  |
| Materials  |      |  |      |           |          |          |  |
| Wire, Barbed, Galvanized, 12.5<br>Gauge, 1,320' roll | 1    | Galvanized 12.5 gauge, 1,320' roll. Includes materials and shipping only.  | Each | \$70.53   | 1        | \$70.53  |  |
| Gate, Pipe, 16'                                      | 1059 | 6 rail tube gate, 16 gauge. Includes materials and shipping only.  | Each | \$206.61  | 1        | \$206.61 |  |
| Fence, Wire Assembly, Woven<br>Wire                  | 35   | Brace pins, twist sticks, staples. Includes materials and shipping only.   | Foot | \$0.12    | 1320     | \$158.40 |  |
| Post, Wood, CCA treated, 5" x<br>8'                  | 11   | Wood Post, End 5" X 8', CCA Treated. Includes materials and shipping only.   | Each | \$11.16   | 6        | \$66.96  |  |
| Wire, Woven, Galvanized, 12.5<br>Gauge, 48"          | 4    | Galvanized 12.5 gauge, 48" - 330' roll. Includes materials and shipping only.  | Each | \$249.98  | 4        | \$999.92 |  |
| Post, Wood, CCA treated, 3-4" x 7'                   | 9    | Wood Post, Line 3-4" X 7', CCA Treated. Includes materials and shipping only.  | Each | \$6.20    | 65       | \$403.00 |  |
| Mobilization   |      |  | •    |           |          | •        |  |
| Mobilization, small equipment                        | 1138 | Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.   | Each | \$174.12  | 2        | \$348.24 |  |

Scenario: #8 - Temporary/Portable Fence

# **Scenario Description:**

Establishment of temporary or portable fence for livestock to facilitate a more intensive grazing system such as stockpiling or stripgrazing.

## **Before Situation:**

This practice will be installed on grazing land. The resource concerns to be addressed by this practice are poor grazing distribution, inadequate water supply, and degraded site conditions leading to poor animal health.

## **After Situation:**

Consists of installing a single strand polywire/polytape fence with step in/fiberglass posts on 50' centers, solar energizer, and all appurtenances. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Associated Practices: Prescribed Grazing, Pipeline, Water Well, Spring Development, Heavy Use Area, Pumping Plant, Watering Facility, Forage and Biomass Planting, Critical Area Planting, Access Control

Scenario Feature Measure: Length of Fence

Scenario Unit: Foot

Scenario Typical Size: 1,320

Scenario Cost: \$636.22 Scenario Cost/Unit: \$0.48

| Cost Details (by category     | <b>/</b> ): |  |      | Price     |          |          |
|-------------------------------|-------------|--|------|-----------|----------|----------|
| Component Name                | ID          | Component Description  | Unit | (\$/unit) | Quantity | Cost     |
| Equipment/Installation        |             |  |      |           |          |          |
| Truck, Pickup                 | 93          | 9 Equipment and power unit costs. Labor not included.  | Hour | \$37.64   | 1        | \$37.64  |
| Labor                         |             |  |      |           |          |          |
| General Labor                 | 23          | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$20.32   | 1        | \$20.32  |
| Materials                     |             |  |      |           |          |          |
| Wire, Polywire                |             | Wire, Polywire for electric fence - 1,300 roll. Includes materials and shipping only.  | Each | \$47.17   | 2        | \$94.34  |
| Post, Fiberglass, 11/16" X 6' | 1           | Piberglass line post, 11/16" diameter X 6' length. Includes materials and shipping only.   | Each | \$6.44    | 26       | \$167.44 |
| Electric, Energizer, Solar    | 2           | 7 Electric, Energizer, Solar for electric fence. Includes materials and shipping only.   | Each | \$316.48  | 1        | \$316.48 |

Practice: 382 - Fence Scenario: #9 - Safety

# Scenario Description:

A barrier (fence) implemented on an NRCS constructed waste storage system according to engineering design to exclude human access. Permanently installed fence built to (1) keep humans away from waste ponds & lagoons, or (2) to protect sensitive areas (riparian areas, wetlands, springs, etc.) from heavy livestock pressure. Heavy grade fence materials and close post spacing required.

#### **Before Situation:**

Where a NRCS designed and constructed waste storage pond is planned whereby significant risk to human safety is determined to be evident. Livestock has access to sensitive areas that may cause detrimental effect to animal/human health and wildlife habitat. Resouce concerns affected are plant health and vigor, wildlife habitat, compaction of soils, runoff of sediment or water quality due to turbidity.

## **After Situation:**

Humans and livestock are excluded from the waste storage pond for safety purposes by installing a fence around a waste holding pond. The fence would typically be 100 wide x 175 long with one gate and installed by a fencing contractor. Woven wire fence with one strand of barb wire on top with a gate. Improved livestock control and access to water or other sensitive areas will promote safety for livestock/humans improve health, vigor of sensitive species, limiting soil erosion, and condition.

Scenario Feature Measure: Length of Fence

Scenario Unit: Feet

Scenario Typical Size: 450

Scenario Cost: \$2,421.81 Scenario Cost/Unit: \$5.38

| Cost Details (by category)                           | ):   |  |      | Price     |          |          |
|--|------|--|------|-----------|----------|----------|
| Component Name                                       | ID   | Component Description  | Unit | (\$/unit) | Quantity | Cost     |
| Equipment/Installation                               |      |  |      |           |          |          |
| Tractor, agricultural, 60 HP                         | 963  | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.  | Hour | \$23.74   | 5        | \$118.70 |
| Auger, Post driver attachment                        | 934  | Auger or post driver attachment to a tractor or skidsteer.  Does not include power unit. Labor not included.   | Hour | \$8.47    | 5        | \$42.35  |
| Truck, Pickup  | 939  | Equipment and power unit costs. Labor not included.  | Hour | \$37.64   | 5        | \$188.20 |
| Labor  |      |  |      |           |          |          |
| Equipment Operators, Light                           | 232  | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP,<br>Trenchers <12", Ag Equipment <150 HP, Pickup Trucks,<br>Forklifts, Mulchers  | Hour | \$22.08   | 12       | \$264.96 |
| General Labor  | 231  | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$20.32   | 15       | \$304.80 |
| Materials  |      |  |      |           |          |          |
| Post, Wood, CCA treated, 6" x 8'                     | 12   | Wood Post, End 6" X 8', CCA Treated. Includes materials and shipping only.   | Each | \$14.96   | 13       | \$194.48 |
| Gate, Pipe, 16'                                      | 1059 | 6 rail tube gate, 16 gauge. Includes materials and shipping only.  | Each | \$206.61  | 1        | \$206.61 |
| Wire, Woven, Galvanized, 12.5<br>Gauge, 32"          | 3    | Galvanized 12.5 gauge, 32" - 330' roll. Includes materials and shipping only.  | Each | \$174.34  | 2        | \$348.68 |
| Wire, Barbed, Galvanized, 12.5<br>Gauge, 1,320' roll | 1    | Galvanized 12.5 gauge, 1,320' roll. Includes materials and shipping only.  | Each | \$70.53   | 1        | \$70.53  |
| Post, Wood, CCA treated, 3-4" x 7'                   | 9    | Wood Post, Line 3-4" X 7', CCA Treated. Includes materials and shipping only.  | Each | \$6.20    | 8        | \$49.60  |
| Post, Steel T, 1.33 lbs, 6'                          | 15   | Steel Post, Studded 6' - 1.33 lb. Includes materials and shipping only.  | Each | \$6.62    | 43       | \$284.66 |
| Mobilization   |      |  |      |           |          |          |
| Mobilization, small equipment                        | 1138 | Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.   | Each | \$174.12  | 2        | \$348.24 |

Scenario: #10 - Temporary\_Portable for Small Livestock

# **Scenario Description:**

Establishment of temporary or portable fence for small livestock to facilitate a more intensive grazing system such as stockpiling or stripgrazing.

## **Before Situation:**

This practice will be installed on grazing land. The resource concerns to be addressed by this practice are poor grazing distribution, inadequate water supply, and degraded site conditions leading to poor animal health.

# **After Situation:**

Consists of installing a prefabricated fence that has 10 horizontal twines; is 42 in. tall installed, and has plastic vertical struts every 12", solar energizer, and all appurtenances. Cost represents typical situations for conventional, organic, and transitioning to organic producers. Associated Practices: Prescribed Grazing, Pipeline, Water Well, Spring Development, Heavy Use Area, Pumping Plant, Watering Facility, Forage and Biomass Planting, Critical Area Planting, Access Control

Scenario Feature Measure: Length of fence

Scenario Unit: Foot

Scenario Typical Size: 1,320

Scenario Cost: \$1,892.44 Scenario Cost/Unit: \$1.43

| Cost Details (by categor    | ry): |  |      | Price     |          |            |
|-----------------------------|------|--|------|-----------|----------|------------|
| Component Name              | ID   | Component Description  | Unit | (\$/unit) | Quantity | Cost       |
| Equipment/Installation      |      |  |      |           |          |            |
| Truck, Pickup               | 939  | Equipment and power unit costs. Labor not included.  | Hour | \$37.64   | 1        | \$37.64    |
| Labor                       |      |  |      |           |          |            |
| General Labor               | 231  | Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. | Hour | \$20.32   | 1        | \$20.32    |
| Materials                   |      |  |      |           |          |            |
| Wire, Electric Netting, 42" |      | Electric netting, 42" tall, 10 horizontal strands, vertical struts every 12 inches, single spike. Material only.   | Foot | \$1.15    | 1320     | \$1,518.00 |
| Electric, Energizer, Solar  | 27   | Electric, Energizer, Solar for electric fence. Includes materials and shipping only.   | Each | \$316.48  | 1        | \$316.48   |